Remarks/Arguments

Claims 18 and 19 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 18-20 are canceled by this amendment.

Claims 1-6, 8, 9, and 13-20 stand rejected under 35 U.S.C 102(b) as being anticipated by Foote (U.S. Pub # 2001/0038342 A1). Independent claim 1 is currently amended to clarify that the claimed aircraft is controllable by way of a command and control radio signal, wherein the flight computer includes software routines capable of loitering the aircraft over a predetermined area in the event of a loss of the command and control radio signal. No new matter has been added as a result of these amendments. Support for the language of the amendment can be found as original in the present application on page 1, paragraph [0011]. Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Foote (U.S. Pub # 2001/0038342 A1) in view of Aratow et al. (U.S. Pat. No. 6,199,008 B1). Claims 10-12, stand rejected under 35 U.S.C. 103(a) as being unpatentable over Foote as applied to claim 1 (directly or indirectly). Claim 12 has been canceled. Reconsideration and withdrawal of the rejections is respectfully requested.

The Present Invention Is Novel Over Foote (U.S. Pub # 2001/0038342 A1)

As stated in MPEP §2131, a claim is anticipated under §102 only if each and every element as set forth in the claim, in as complete of detail, is found in a single prior art reference. The claimed invention, according to independent claim 1, includes a recitation for a printed circuit adhered to the surface of at least one structural element. As such, for a cited reference to

be anticipatory, the reference must describe this identical element. In other words, the reference, to teach in as much detail as is claimed by the present invention, must disclose an aircraft having a memory loaded with geolocation data corresponding to restricted airspace boundaries and a flight computer programmed with software for rerouting the aircraft outside of the restricted airspace boundaries as the aircraft approaches to within a predetermined distance of the restricted airspace, the aircraft further being controllable by way of a command and control radio signal, wherein the flight computer includes software routines capable of loitering the aircraft over a predetermined area in the event of a loss of the command and control radio signal.

Foote does not disclose an aircraft that is controllable by way of a command and control radio signal, wherein a flight computer includes software routines capable of loitering the aircraft over a predetermined area in the event of a loss of the command and control radio signal. Therefore, the Foote application cannot anticipate claim 1 and its dependents as currently amended.

Regarding claims 16 and 17, Applicant has been unable to find anywhere in the Foote application a disclosure of a communications relay system using unmanned aircraft. For one, the Foote application has no means for a second unmanned aircraft to communicate with a ground based wireless communication station outside the wireless range of the ground based communication system. Secondly, Foote does not relay ground based commands to a second unmanned aircraft through a first unmanned aircraft flying in a predetermined pattern within wireless range of the ground based wireless communication system. In fact, FIG. 10 to which the

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Examiner points to does not show any direct data communication link between the aircraft, and without a direct data link between the aircraft no data relay between the aircraft can occur. Therefore, for this reason alone, Foote cannot rightfully be said to anticipate claims 16 and 17. Furthermore, FIG. 10 of Foote does not support any communication with any aircraft beyond the wireless range of a ground station. Therefore, for this second reason, the Foote application does not anticipate the present invention as claimed.

The Present Invention Is Not Obvious Over The Cited References

The Federal Circuit has ruled on numerous occasions that a holding of "obviousness" requires some motivation, suggestion or teaching within the cited references that would lead one skilled in the art to modify the cited reference or references as claimed by applicant. See, for example, In re Kotzab, 217 F3d 1365, 55 USPQ2d 1313 (Fed Cir. 2000):

> "Most if not all inventions arise from a combination of old elements. See In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. See In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. See B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp., 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996)."

The cited Foote publication and the cited Aratow patent describe aviation systems including methods for ground communication. The claims of the present application also

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describe an aviation system including methods for ground communication. However, the applicant's system and methods as specifically claimed, are distinguishable over both Foote and Aratow. Neither Foote nor Aratow suggest or teach alone or in combination an aircraft having a memory loaded with geolocation data corresponding to restricted airspace boundaries and a flight computer programmed with software for rerouting the aircraft outside of the restricted airspace boundaries as the aircraft approaches to within a predetermined distance of the restricted airspace, the aircraft further being controllable by way of a command and control radio signal, wherein the flight computer includes software routines capable of loitering the aircraft over a predetermined area in the event of a loss of the command and control radio signal.

Moreover, neither of the cited references teach nor suggest a communications relay system using unmanned aircraft that includes:

a) a ground based wireless communications station;

b) a first unmanned aircraft for flying a predetermined pattern within wireless communication range of the ground based wireless communications station; and

c) a second unmanned aircraft for operating within wireless communication range of the first unmanned aircraft and for simultaneously flying outside the wireless range of the ground based wireless communication station and for receiving ground based wireless communications station commands relayed through the first unmanned aircraft.

Instead, the cited references only contemplate or suggest having aircraft that are always within wireless range of ground based communication systems. Any attempt to modify the

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system and methods taught by the cited references to incorporate a means to relay ground station data through one unmanned aircraft to another would be contrary to the teachings of the cited references. Therefore, claim 16 and its dependent is not obvious with regard to the cited references.

In view of the foregoing amendment and for the above reasons, it is now believed that this application is now in condition for allowance. Accordingly, an early Notice of Allowance is respectfully solicited.

Respectfully submitted,

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